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Acquisition Pilot: SCAMPI B and C with Lessons Learned

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Topics

Description

Participation

Approach

Schedule

Results

Lessons Learned

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Description

Technology to be Piloted
SCAMPI ARC Classes B and C

Primary Goal for the Pilot
Develop a usable, accurate, and efficient appraisal method that can address risk identification, risk mitigation, time constraints, and objectivity requirements related to process capability for program management, source selection, and contract monitoring applications.

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Problem Statement

The SCAMPI Class A method is a rigorous appraisal method designed for benchmarking an organization's process capabilities with respect to the CMMI. The time and effort required for appraisal benchmarking applications are not always necessary or practical for source selection or contract monitoring applications.

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Research Questions

For SCAMPI Appraisal Classes B and C, what are the resource and information requirements for typical source selection and contract monitoring applications?

Determine approaches and effort required for ensuring sufficient gathering and verification of objective evidence to support acquisition management decision needs.

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Scope [1]

Make SCAMPI Classes B and C ARC Compliant

Engage at least two acquisition organizations in the DoD acquisition community to elicit and implement appraisal requirements

Conduct source selection and contract monitoring use modes

Perform local trials including training to test feasibility and accuracy of approaches to meet identified requirements, and to determine resources required

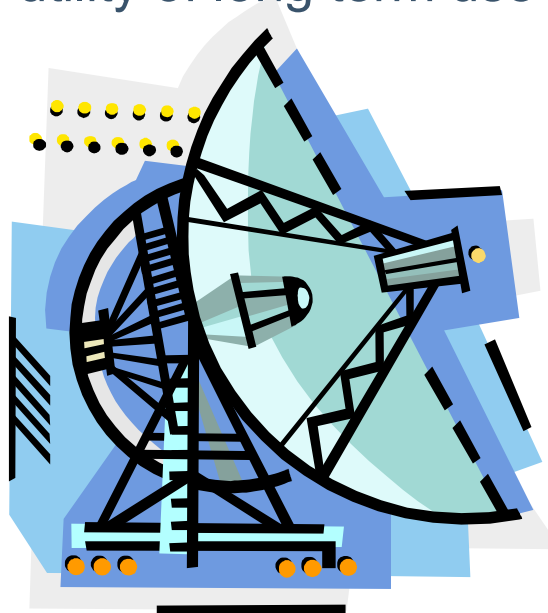Present lessons learned to SEI Appraisal Team and acquisition community

Scope 2

The following is out of scope for this pilot but important to the success of the SCAMPI family:

Gather data on the utility of long term use of SCAMPIs in acquisition

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Funding

Customer/collaborator funding:

- CECOM

- ESC

- Industry partners (4)

- NAVAIR

- NRO

- NSA

- SEI

- SMC

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Customers

- NRO

- NSA

- USA CECOM

- USAF ESC/MITRE (ACE)

- USAF SMC/Aerospace

- USN NAVAIR

Collaborators [1]

- CRSIP

- DCMA

- Industry Partners (4)

- SCAMPI MIG Development Team

- SEI Appraisal Team

- STSC

Collaborators 2

- USA Picatinny

- USAF AFFTC Edwards AFB

- USAF ASC

- USAF WR-ALC

- USN NSWC

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Participants [1]

- ASC: Bernard

- CECOM: Riviere

- CRSIP: Allgood

- DCMA: Ashford, Bush, Grant, Ming

- Edwards AFB: Gardner

- ESC/MITRE: Rosa

- NAVAIR: Coyle

- NRO: Benhoff, Orr

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Participants 2

- NSA: Sumpter, Wickless

- NSWC: Zentner

- Picatinny: Sherer

- SEI: Ferguson, Gallagher, Hayes, Miluk, Ryan

- SMC/Aerospace: Davis, Eslinger

- STSC: Baxter, Dayton

- WR-ALC: Sapp

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Participant Roles and Responsibilities

Provide initial requirements

Generate additional requirements through SS, CM, PI appraisals

Participate in site visit trials

Search for additional site visit trials

Provide lessons learned

Transition to local use

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Customer/Collaborator—Pilot Fit [1]

Example Customers/Collaborators that could benefit:

• DCMA, NRO, NSA, USA, USAF, and USN have used appraisals for source selection and contract monitoring.

• CECOM SEC, ESC, NRO, NSA, and SMC have used appraisals for internal acquisition and systems engineering process improvement.

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Customer/Collaborator—Pilot Fit [2]

Other motivations for conducting this pilot:

- Section 804 Appropriations Bill

- Customers and contractors are asking for assistance

- Scarce appraisal resources in DoD

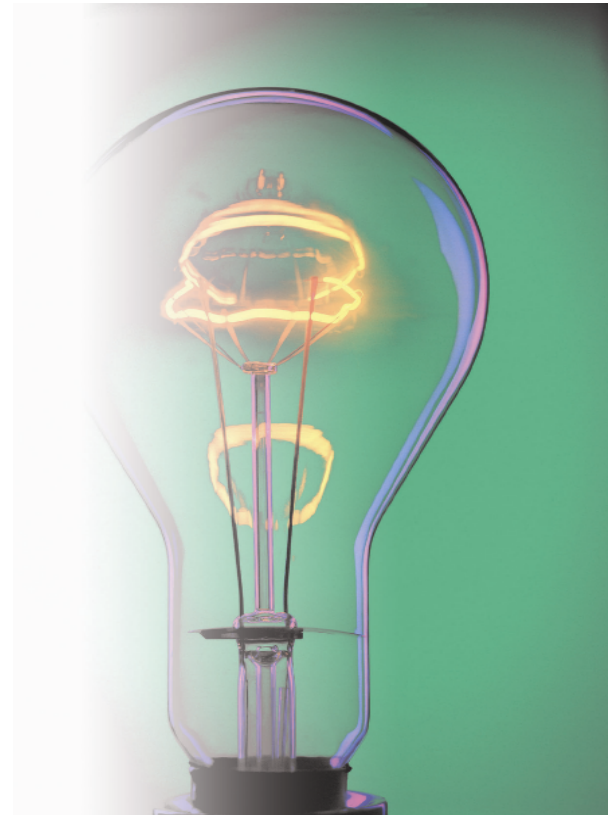- Impact of longer appraisals on DoD/industry/programs

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Approach 1

Present requirements and lessons learned from B+C pilots to SEI CMMI Appraisal Team

Perform incremental design of B and C

Select and conduct source selection pilot appraisal

Document lessons learned

Repeat for contract monitoring

Revise requirements

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Approach 2

Provide Inputs to SEI CMMI Appraisal Team

Revise design

Have a community review

Initial SCAMPI B and C methods

Update SCAMPI MIG

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Value and Significance to Customers/Collaborators

Supplies first-hand experience, training, and advanced application in ongoing acquisition efforts

Accelerates appraisal resources at reduced costs

Provides input to method requirements and design

Allows customers/collaborators to work with others with similar needs

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Value and Significance to the SEI

Allows quicker, broader and more effective transition to CMMI

Provides actual user input and use in real world applications

Creates trained appraisers with real experience

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Value and Significance to the Acquisition Community

Supplies a formal and practical appraisal method family that addresses real DoD acquisition needs related to process capability and risk identification

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Relevance and Timeliness

Relevance

Without this pilot, the appraisal requirements for the DoD acquisition community would not be considered or tested when the SEI Appraisal Team developed SCAMPI Classes B and C

Timeliness

The timing is right because

- CMMI Appraisal Team is developing SCAMPI B+C

- ESC, NAVAIR, NRO, NSA, SMC customer funding

- industry partners (4) pilots exist

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Risks

CECOM, ESC, NAVAIR, NRO, NSA, SMC not fully representative of acquisition community

- Added ASC, CRSIP, DCMA, Edwards AFB, NSWC, Picatinny, STSC, WR-ALC participation

Services unable to keep trained resources

- Augment with DCMA, FFRDCs, SETA, STSC, volunteers

- SEI appraisal registration process (OSD Considering)

Source Selection and Contract Monitoring Opportunities

- Extended pilot period to two years

Dependencies

DoD acquisition policy

Acquisition organizations commitment

Success Criteria

Clear, actionable requirements consistent with ARC Appraisal Classes B and C are received from customers and collaborators

Site visits provide accurate findings with expended effort acceptable to participants.

Detailed requirements and lessons learned are compatible with industry pilot requirements and results

Adoption of SCAMPI B and C by customers and appropriate collaborators for use in acquisitions

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Schedule 1

Site Visits	Jan 2003-Jul 2004
B+C Handbook	
Draft	Aug 2004
Stakeholder Review	Sep 2004
V1.0	Oct 2004
B+C Upgrade Training for Current Lead Appraisers	
Draft	Aug 2004
Pilot	Sep 2004
V1.0	Oct 2004

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Schedule 2

Formal B+C Team Lead Training

     Draft   Oct 2004

     Pilot   Oct-Nov 2004

     V1.0   Dec 2004

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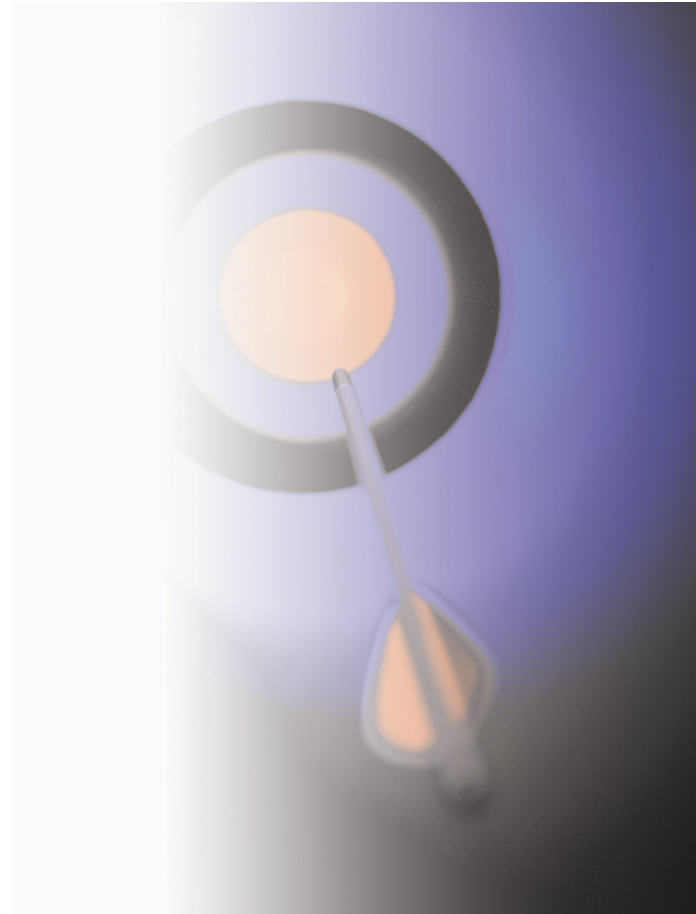**Software Engineering Institute**

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Results [1]

Results to date:

- Archetypes

- Acquisition use cases and inventory

- Framework document

- STC presentation

- CMMI intermediate course

- Special lead appraiser course

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Results 2

Results to date:

- Pilot appraisals

- SEPG panel and tutorial

- Handbook for conducting SCAMPI B and C appraisals

- SCAMPI B+C team lead upgrade training

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Results 3

Unexpected and influential developments:

- Section 804 Defense Authorization Act

- More pilots than time and funding

- Many internal and external volunteers for teams

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Results [4]

Our Pilot appraisals with lessons learned:

- 2 source selection

- 4 contract monitoring

- 3 process improvement

Other Pilot appraisals with lessons learned:

- 9 SMC

- 3 NRO

- 4 WR-ALC

- 18 CECOM

- 8 of 11 OSD CMMI-AM

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CECOM SEC Appraisal Plan

Quick look appraisals, conducted Oct.-Dec. 2003

Purpose:

- Baseline SEC organizations against CMMI practices for process improvement

- Educate SEC participants on CMMI practices and appraisal methods using "on the job" training

- Obtain SEC CMMI data for the SEC technical working groups

- Look at processes (DoD, Army, CECOM, SEC, Directorate & Division) that are used

- Look for best practices and tools

Appraised unit: SEC Wide

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Appraised Units

18 Units Were Appraised (15 Appraisers)
- ABSD
    - ASD - Application Support Division
    - ATD - Architecture and Technology Division
    - TSD - Tactical Solutions Division
- BSSD
    - IFS - Fort Huachuca
    - IEW - IEW Support Branch
    - AV - Avionics Support Branch
    - CDTB - Communications Division Tactical Branch
- ITED
    - ISD - Infrastructure Services Division
    - ASD - Application Services Division
    - DID - Digitization and Interoperability Division
    - IOD - Information Operations Division
- BSD
    - Mon - BSD Monmouth
    - ILSO - Industrial Logistics Systems Support Office, Chambersburg, PA
    - LSSO - Logistics Systems Support Office, St. Louis
- SEC Lee
- SEC Belvoir
- RMO
- STO2

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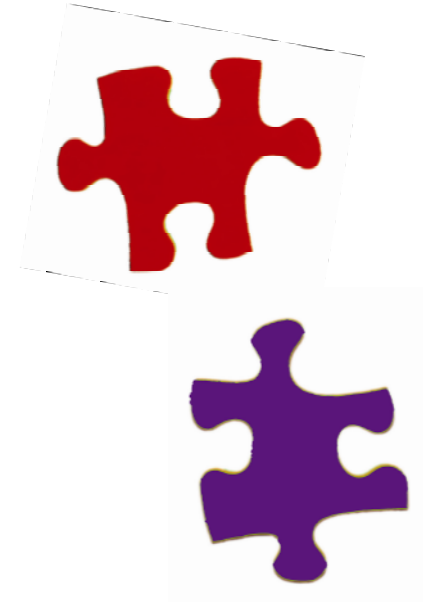
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Lessons Learned [1]

10. Discovery vs. verification

9. Good and bad PIIDs

8. Asynchronous mini-teams

7. Old F2F habits

6. Validation of preliminary observations

Lessons Learned 2

5. Project specific results

4. Appraisal team competencies

3. C → B → A efficiencies

2. Behaviors vs. ratings
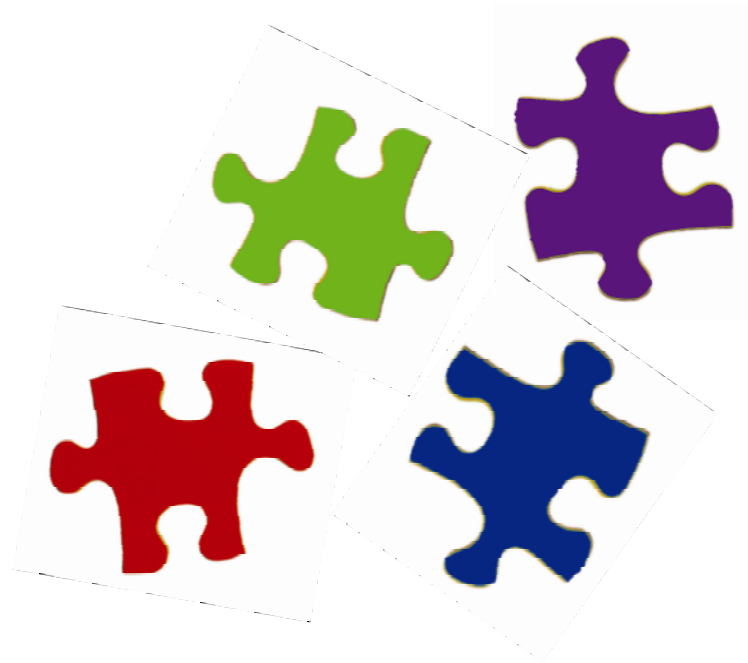
1. Plan for appraisals in RFP and contract

Lessons Learned 3

0. Murphy is alive and well

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References

SCE V3.0 MDD

CMMI V1.1

CMMI-AM

ARC

SCAMPI V1.1 MDD

SCAMPI V1.1 MIG

Handbook for Conducting SCAMPI B and SCAMPI C Appraisals

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